CLAIMS

1. A vinylidene fluoride resin monofilament, comprising a vinylidene fluoride resin having an inherent viscosity of at least 1.40 dl/g, and having a knot strength (JIS L1013) of at least 600 MPa and a twist index of at least 0.90 when measured after the monofilament being subjected to application for 1 minute of a tensile load equal to approximately 50% of a maximum tensile load (JIS K7113), removal of the load, and standing for 3 hours.

2. A monofilament according to claim 1, having a twist index of at least 0.92.

3. A monofilament according to claim 1 or 2, having a core-sheath laminar structure comprising a core having a higher inherent viscosity and a sheath having a lower inherent viscosity.

4. A monofilament according to any one of claims 1 - 3, having a knot elongation of 16 - 35% and a Young's modulus of 1500 - 3500 MPa.

5. A monofilament according to any one of claims 1 - 4, having a diameter of 52 μm – 1.81 mm.

6. A process for producing a vinylidene fluoride resin monofilament, comprising: subjecting a vinylidene fluoride resin monofilament after melt-spinning and stretching to a high-temperature relaxation treatment for an extremely short period of 0.05 - 0.5 sec. within a high-temperature heating oil bath at a temperature of 140 - 175°C.

7. A process according to claim 6, wherein the vinylidene fluoride resin monofilament has been stretched at a ratio of at least 5 times prior to the relaxation heat treatment.

8. A process according to claim 6 or 7, wherein a relaxation of 1 - 14% is given in the relaxation heat treatment.

9. A process according to any one of claims 6 - 8, wherein the heating oil bath comprises glycerin, silicone oil or polyethylene glycol.

10. A fishing line, comprising a vinylidene fluoride resin monofilament according to any one of claims 1 - 5.

11. A fishing line according to claim 10, in a form of being wound about a spool.